HEART HEALTH

New Advances In Implantable Heart Devices Allow Patients To Get Lifesaving MRI Scans

(NAPSA)—Shirley Goodman, a 60-year-old mother and grandmother from Jacksonville, Florida, recently experienced a "warning stroke" called a transient ischemic attack that was diagnosed through a magnetic resonance imaging (MRI) scan. She has also suffered from heart problems for years. To address her heart condition, her doctor recommended an implantable cardioverter defibrillator (ICD) to continuously monitor her heart rate and deliver an electrical shock to correct a life-threatening heart rhythm, if needed. Given her history, there was a high likelihood that she would need another MRI in the future.

Until recently, Shirley would not have been able to benefit from both an ICD and an MRI scan. Thanks to recent advancements in MRI-conditional heart devices, Shirley received an ICD that is approved for use with MRI scans.

One of the fastest-growing imaging techniques, approximately 28 million MRI scans are performed every year in the United States. MRI technology has evolved into an essential tool for the diagnosis of life-threatening conditions such as stroke, cancer, Alzheimer's disease, and muscle, bone and joint pain.

Unlike other diagnostic imaging tests, MRI scans offer several unique advantages, including:

• Greater detail in examining soft tissue (cartilage, muscles and tendons).

• No radiation exposure. MRIs do not use potentially harmful ionizing radiation.

• MRIs evaluate bone health. One of the few imaging tools that can see through bone, MRI is helpful in detecting bone cancer and bone loss.

Despite the evolution of MRI technology, thousands of patients living with certain heart conditions requiring an implantable cardiac device have not been able to undergo this important diagnostic test. In fact, the U.S. Food & Drug Administration warns against patients with heart devices undergoing MRI scans because of potential interactions between the magnetic field and device function, which could be harmful to patients. In the past, this has posed a critical problem because approximately 40–75 percent of heart device patients like Shirley will need an MRI scan at some point during the lifetime of their heart device.

MRI technology is an essential tool for diagnosing many medical conditions.

Fortunately, there are now implantable heart devices that allow patients to receive these critically important MRI scans, while providing a valuable treatment for conditions such as atrial fibrillation and heart failure. These devices include:

• Pacemakers treat patients with bradycardia, a slow or irregular heartbeat, usually lower than 60 beats per minute. At this rate, the heart is not able to pump enough oxygen-rich blood to the body. As a result, patients may feel dizzy, have a lack of energy or shortness of breath, or even experience fainting spells. A pacemaker helps by sending tiny electrical pulses to the heart to increase the heart rate and restore the heart's rhythm.

• Implantable Cardioverter Defibrillators (ICDs) treat sudden cardiac arrest (SCA) and other dangerously fast and potentially life-threatening heart rates. SCA occurs when the heart beats so fast that it cannot effectively pump blood to the body and brain. If left untreated, SCA can lead to death. An ICD helps to monitor the heart and will deliver a life-saving therapy to restore a normal heartbeat.

• Cardiac Resynchronization Therapy Defibrillators (CRT-Ds) help treat patients with heart failure by helping the lower chambers of the heart beat in a synchronized rhythm. For patients with heart failure, the heart's pumping ability is compromised, and the electrical impulses that contract the heart's lower chambers may be impaired. Heart failure patients may experience symptoms that include shortness of breath, fatigue, and swelling of the feet and ankles. A CRT-D not only helps to improve the pumping efficiency of the heart, leading to symptom reduction and improved quality of life for patients, but can also detect and treat dangerously fast heart rhythms, if needed.

• Insertable Cardiac Monitors (ICMs) continuously monitor and record the heart's rhythms to help diagnose conditions such as bradycardia and atrial fibrillation, a fast and irregular quivering in the heart's upper chambers that can lead to strokes if left untreated. Some ICMs can monitor heart rhythms for up to three years.

"The defibrillator gives us the assurance to know if she needs medical help, there is hope she can survive," said Shirley's husband, Jesse, following her device implant procedure. "It calms my fears some. And if she needs an MRI, she will be able to get it."

If you, a friend or a loved one is evaluating a recommendation from a doctor to receive an implantable heart device, ask your doctor if it has been approved for use in MRI scans. For more information, visit www.medtronic.com/mriheart devices.

Note to Editors: *February is Heart Month.*